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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,716	04/16/2004	Daniel V. Palanker	59599-20005.01	8810

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EXAMINER	
VRETTAKOS, PETER J	

ART UNIT	PAPER NUMBER
3739	

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

NT

Office Action Summary	Application No.	Applicant(s)	
	10/825,716.	PALANKER ET AL.	
	Examiner	Art Unit	
	Peter J. Vrettakos	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-35 are pending.

The action is final. New art is presented to address amendments dated 8-17-06. Malis et al. (4,590,934) discloses a voltage source configured to apply a plurality of pulses as claimed by the Applicant. See Malis et al. figure 18(f).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,2,3,9,14-15, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggers et al. (6,047,700) in view of Malis et al. (4,590,934).

Eggers discloses a cutting wire (252 – figure 5) electrode (104) with elongate cutting portion (circular cross section – figure 3, 104; a bend – figure 4, return electrode (112), voltage source (20) with pulse control (30) permitting the claimed pulse parameters including micropulses within minipulses (Eggers indirectly discloses peak power control, duration control, and a modulation format with pulse power, duration, and interval in col. 12 beginning at line 54 where Eggers discloses variability in parameters (such as power level) as dictated by the application (cardiac versus dermatological, etc.)) for creating a vapor cavity (col. 3:46-55) for purposes of cutting biological tissue

(calcified deposits – see patent title).

Eggers discloses a structurally equivalent device anticipating the Applicant's functional language toward, "preventing charge transfer." The claim is anticipated because it does not include any structural elements not found in Eggers. Further, the Examiner contends that the structurally equivalent Eggers' device is capable of "preventing charge transfer."

Eggers discloses a frequency range that overlaps the Applicant's pulse duration range (col. 12:45-46). Note to reader: frequency and pulse duration are inversely related.

Eggers depicts an aspect ratio (length to width) larger than one (electrode tips element 107).

Eggers discloses a voltage source but does not disclose sufficiently to make obvious a voltage source configured to apply a plurality of bursts of pulses separated by a burst interval as claimed by the Applicant.

Malis et al. however, does disclose a voltage source configured to apply a plurality of bursts of pulses separated by a burst interval as claimed by the Applicant and the source's output is seen in figure 18(f). Also see col. 10:38-44.

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify/optimize Eggers in view of Malis et al. through routine

experimentation. The motivation to use Malis et al.'s voltage source is to provide more control over energy pattern deposition as disclosed in Malis et al. col. 1:5-42.

Claims 4-5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggers in view of Malis et al. (4,590,934) and further in view of Lewis et al. (6,620,160).

Lewis et al. is presented to show that the prior art discloses throughout the patent electrodes (that are easily substitutable into Eggers) of sizes/dimensions similar to the Applicant's.

Although Lewis does not expressly disclose a cutting portion of an electrode, Eggers does as depicted in figure 8a, thereby making the rejection valid toward Applicant's disclosure of an electrode with a cutting portion. Lewis is presented for its express disclosure of electrode dimensions (diameter), which one could use in the design of the Eggers electrodes. Lewis' lack of a "cutting portion" of an electrode as defined by the Applicant is not important to the construction of this rejection.

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Eggers in view of Malis et al. (4,590,934) and further in view of Lewis by including specific dimensions for the cutting electrode. The motivation would be to use electrode sizes that are functional as seen in the prior art.

Claims 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggers in view of Malis et al. (4,590,934) and further in view of

Savage (6,113,594).

Eggers/Malis neglects to disclose a looped and bent translatable cutting electrode with a circular cross section.

Savage discloses in an analogous device and method of use a **looped and bent** translatable (col. 6:27-31) cutting electrode (14) with a circular cross section, return electrode (16), voltage source (34), conductive liquid (col. 8:43), and pulse control (36,38).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Eggers in view of Malis et al. (4,590,934) and further in view of Savage by including alternate designs for the cutting electrode. The motivation would be to provide a choice to the constructor of the device, which would be determined by the specific application for which the device is to be used.

Claims 11, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggers in view of Malis et al. (4,590,934) and further in view of McGreevy et al. (4,781,175).

Eggers/Malis neglects to disclose awareness of arc discharges, cutting portion temperatures, charge transfer, and RC circuits.

McGreevy discloses in an analogous device and method of use awareness awareness of arc discharges (arc sense circuit 316, col. 15:42 through col. 16:17), cutting portion temperatures above 100 degrees Celsius (col. 4:7-11), prevention of charge transfer (filters 506,508, 528,530, figure 15), and RC circuits (resistors and

capacitors depicted in figure 15).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Eggers in view of Malis et al. (4,590,934) and further in view of McGreevy by including an arc sense circuit. The motivation would be to provide feedback control to the device as posited in McGreevy col. 15:42 through col. 16:17 for more effective operation.

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Prior 35 USC § 112 rejections are obviated through clarifying arguments dated 8-17-06.

Malis et al. (4,590,934) discloses a voltage source configured to apply a plurality of pulses as claimed by the Applicant. See Malis et al. figure 18(f).

Terminal Disclaimer approved.

Allowable Subject Matter

Claims 17-34 are allowed. **(Actual allowance of these claims is contingent upon a future requisite update search not finding art that would be appropriately applied in a rejection.)**

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Malis et al. (5,318,563) and Rosenstock et al. (6,458,121).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Vrettakos whose telephone number is 571-272-4775. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roy D. Gibson

ROY D. GIBSON
PRIMARY EXAMINER

Pete Vrettakos
November 9, 2006